

*...with the ... of
To Turkey*

CELEBRATION

OF THE

INTRODUCTION OF WATER,

INTO THE

CITY OF BOSTON,

OCTOBER, 25, 1848.

F73.37.

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CELEBRATION

OF THE

INTRODUCTION

OF THE

WATER OF COCHITUATE LAKE

INTO THE

CITY OF BOSTON.

OCTOBER 25, 1848.



BOSTON:

J. H. EASTBURN, CITY PRINTER.

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1848

CITY OF BOSTON.

In Board of Aldermen, Monday, Oct. 30th, 1848.

ORDERED,—That Aldermen ROGERS and OBER, with such others as the Common Council may join, be a Committee, with full power, to prepare and publish an account of the Water Celebration on the 25th inst.; and that, for this purpose, they request of his Honor, the Mayor, and the Hon. Nathan Hale, copies of the Address and Report delivered by them on that occasion.

Sent down for concurrence.

JOSIAH QUINCY, JR., MAYOR.

In Common Council, November 2d, 1848.

Read and concurred, and Messrs. Marvin, Cushing and Blanchard were joined.

BENJAMIN SEAVER, PRESIDENT.

WATER CELEBRATION.

THE Water Commissioners having announced to the City Council, that the Aqueduct from Lake Cochituate to the reservoir and gate house in Brookline, would be completed, and that the main pipe for conducting the water thence to the City, would be laid on or before the 25th day of October, and would be in readiness for introducing the water of the lake into the City, on that day, a joint order of the two Boards was passed, directing an appropriate public celebration of the event, and appointing a joint Committee to arrange and superintend the celebration. The Committee consisted of

JOSIAH QUINCY, JR., *Mayor*.

BENJAMIN SEAVER, *President of Common Council*.

WILLIAM POPE,	}	Aldermen.	{	JOHN P. OBER,
BILLINGS BRIGGS,	}		{	MOSES GRANT,

Abel B. Munroe,	Ward 1	Josiah P. Bradlee,	Ward 7
Henry Davis,	" 2	Wm. A. Harrington,	" 8
Thomas Critchett,	" 3	Tisdale Drake,	" 9
Samuel W. Hall,	" 4	Samuel Wales, Jr.,	" 10
W. W. Greenough,	" 4	G. W. Frothingham,	" 11
Wm. D. Coolidge,	" 5	Joseph Smith,	" 12
John P. Putnam,	" 6	of the <i>Common Council</i> .	

The Committee resolved, as an appropriate form of celebration, to invite the citizens of the metropolis, with such of the public officers, the municipal authorities, the militia, various public bodies, and institutions of the Commonwealth, as might be disposed to accept the invitation, to unite in a procession, embracing a cavalcade and military escort, and to be present on the introduction of the water at the Fountain, on the Common.

The citizens cordially responded to the invitation, and they were joined by great numbers of their fellow-citizens from all parts of the State, who came to offer their sympathy on the joyful occasion. The usual avocations were suspended, in token of the common rejoicing in the accomplishment of a great and useful enterprise, and a vast concourse of citizens and strangers assembled, to unite in the procession, and to be witnesses of its progress, and of the event to be commemorated.

The day opened propitiously by beautiful weather, after a heavy rain during the night, disappointing the gloomy anticipations of the preceding day. The discharge of artillery, at break of day, was the appointed signal that the celebration would proceed—as orders had been given for its postponement, in case the weather should prove inclement—and a salute of one hundred guns opened the ceremonies of the day, accompanied by the ringing of the bells of the City.

At an early hour the streets were filled with people, attracted by the decorations, mottoes, and devices, by which the principal avenues through which the procession was to pass were embellished. These were very numerous, and were well arranged, and in good taste, and some of them extremely beautiful. Among them were the following.

The gateways to the Common were surmounted with arches, on which were the following appropriate mottoes and devices :—

At the corner of Park and Tremont streets—

"WATER INTRODUCED INTO THE CITY, OCT. 25th, 1848—
JOSIAH QUINCY, JR., Mayor,"—with a fountain in the centre,
surmounted by a pyramid of evergreens and flowers. Reverse—

"PRAISE AND ADORATION BE GIVEN UNTO HIM WHO VIS-
ITETH THE EARTH AND WATERETH IT."

At the corner of Beacon and Charles streets—

"STREAMS SHALL RUN IN OUR STREETS AND PLAY ABOUT
OUR DWELLINGS." Wreath in the centre. Reverse—

"SWEET WATERS SHALL FLOW IN UPON US, AND BITTER
WATERS BE DRIVEN OUT."

At the corner of Boylston and Charles streets—

"THE WATER SHALL BE AS A FOUNTAIN TO FERTILIZE THE
VALLEY." Reverse—

"THE SPRINGS OF THE HILLS HAVE COME UNTO US TO RE-
FRESH US."

At the corner of Boylston and Tremont streets—

"REJOICE, FOR THE ROCK HAS BEEN SMITTEN AND THE
WATERS HAVE GUSHED OUT." Reverse—

"WATER SHALL RUN IN DRY PLACES AND THE THIRSTY
SHALL DRINK THEREOF AND BE GLAD."

In the Frog Pond, a commodious stand was erected,
decked with evergreens and flowers, on which were mot-
toes as follows:—

"THE LORD SPAKE, GATHER THE PEOPLE TOGETHER AND
I WILL GIVE THEM WATER: Numb. xxi. 16."

"WE HAVE FOUND WATER: Gen. xxvi. 32."

"THE WATER IS OURS: Gen. xxvi. 20."

"YE SHALL SERVE THE LORD YOUR GOD, AND HE SHALL
BLESS THY BREAD AND THY WATER: Exod. xxiii. 25."

"JESUS SAITH, FILL THE WATER POTS WITH WATER: John
ii. 7."

Along the line of the procession ropes had been stretch-
ed across the streets, from each of which was suspended
a white tablet, fringed and festooned with evergreens, and
flanked on either side by an American flag. Each tab-
let bore an inscription, and these inscriptions, taken in
connection, gave a brief history of the events connected
with the introduction of the water from Cochituate Lake
into the City. The first was suspended across Tremont
street, from the Tremont House, and bore the following
words:

"A loud call from the people for pure water! Cry heard by Hon. Josiah Quincy, Mayor, 1825."

The second across Court street, near Sudbury.—"Correspondence commences with Daniel Treadwell, Civil Engineer, 1825."

The third, across Bowdoin square, from the Revere House to the Bowdoin square Church,—"Hon. Theodore Lyman, Jr., recommended the introduction of pure water into the City, Jan. 1834."

The fourth, across Chambers street, at the corner of Green,— "Loammi Baldwin, Esq., reports to the City Council on the subject of supplying the City with water, October, 1834."

The fifth across Merrimac street,— "Report made to the Hon. S. T. Armstrong, Mayor, by R. H. Eddy, Civil Engineer, on the subject of introducing water into the City, June 1836."

The sixth,— "Daniel Treadwell, James F. Baldwin, and Nathan Hale, Esqs., appointed commissioners to examine the sources from which water could be obtained. Report made Nov. 1837."

The seventh,— "Hon. Samuel A. Eliot, Mayor, in behalf of the committee of the City Council, recommends the introduction of water into the City, January 1838."

The eighth, across Commercial street from Quincy Market:— "The inhabitants petition the City Government for a supply of pure water, Feb. 1838."

From Faneuil Hall to the buildings around, were ropes from which were suspended the flags of different nations.

Suspended across State street, from the Merchants' Exchange, was an entablature with:— "The Mayor authorized by the City Government to apply to the Legislature for powers to bring water into the City, April, 1838."

The tenth across Washington street, from Marlboro' Hotel:— "Petition presented by the City Government to the Legislature, for an act to introduce water into the City, January, 1840."

The eleventh, across Washington street from the Adams House, "City of Boston authorized, by an act of the Legislature to bring water from Long Pond, March 30th, 1846."

The twelfth across Washington street from Boylston Market,— "Act of the Legislature adopted by the citizens April 13th, 1846. Vote, 4637 yeas, to 348 nays."

The thirteenth, across Washington street, near Warren,— "Nathan Hale, James F. Baldwin and Thomas B. Curtis, Esqs., chosen Water Commissioners, May 5, 1846."

The fourteenth, and last, across Tremont street, below the Common, "Ground broken at Cochituate Lake by the Hon. Josiah Quincy, Jr., August 20th, 1846."

Across Tremont street, Mr. Kimball, of the Museum,

had erected a splendid Moorish arch, handsomely decorated, and bearing the following inscriptions:—

“OUR BEST WATER BROUGHT IN CONDUITS HITHER.”

Shakspeare.

“HERE’S WATER, LOOK YOU.” “HOW WILL I RAIN THE WATER.”

“THERE WILL BE A WORLD OF WATER SHED.”—*Shakspeare.*

The Tremont House, Engine House, No. 18, the Revere House, parts of Blackstone and Hanover streets, Simmons’s Clothing store over the Market, Faneuil Hall, the old State House, and many other places, were handsomely decorated with flags.

The house of Moses Grant, Esq., in Cambridge street was tastefully embellished with flags and mottoes. On the right was the inscription—

“LONG LOOKED FOR COME AT LAST.”

On the left—

“NOW BE OUR DRINK COCHITUATE WATER CLEAR.”

THROUGH ALL THE SEASONS OF THE ROLLING YEAR.”

Across Hanover street, from the church of Rev. Dr. Parkman, was the inscription—

“PURE WATER THE GIFT OF HEAVEN.”

Warren Street chapel, also on the line of the procession, was very appropriately dressed. Upon banners hanging from the windows, were the inscriptions—

“PEACE,” “LOVE,” “LIBERTY,” “HOLINESS.”

The procession, which was arranged with great judgment and conducted with admirable order and regularity, was under the direction of FRANCIS TUKEY, Esq., as Chief Marshal for the day, assisted by the following Aids and Assistant Marshals.

Gen. John S. Tyler,	George G. Smith,
Gen. Josiah L. C. Amee,	Col. Newell A. Thompson,
Col. William Schouler,	John C. Tucker,
John T. Heard,	Moses Kimball,
Henry N. Hooper,	Capt. Robert B. Forbes,

Dr. J. W. Warren,
Capt. Gilbert Brownell,
Hon. John C. Park,

Peter C. Jones,
Gideon F. Thayer,
Ebenezer Dale.

THE FOLLOWING WAS THE ORDER OF PROCESSION.

1st. The MILITARY ESCORT.

This consisted of the Light Infantry and Rifle Companies of the City, and of a large number of corps from the neighboring cities and towns, numbering in all about thirty companies, under the command of GEN. B. F. EDMANDS.

The companies generally appeared with full ranks, and exhibited a fine appearance, and an admirable state of discipline. So fine a military display has not been exhibited in the Commonwealth for many years.

2d. The FIRE COMPANIES of the City, and of many of the neighboring cities and towns, dressed in their varied uniforms and carrying their respective banners and badges. They exhibited a numerous body of active and spirited men, always on the alert at the cry of danger.

3d. The CAVALCADE, consisting of a very numerous body of horsemen, well mounted on beautiful horses, skilfully matched and marshalled, and presenting a very attractive appearance.

4th. The CIVIL PROCESSION.

DIVISION ONE,

Under the direction of

Hon. JOHN C. PARK, Chief Marshal.

Aid

Aid

Edmund Dexter, Esq.

Charles L. Woodbury, Esq.

CONSISTING OF

Marshals.

Mayor of Boston.

Marshals.

Committee of Arrangements.

Water Committee.

Water Commissioners and Engineers.

Military.

Presidents of the Common Council.

Members of the Common Council.

High Sheriffs of the State.

His Excellency the Governor and Suite and Adjutant General.

His Honor the Lieut. Governor and Executive Council of
Massachusetts.

Military.

President of Harvard University.

Their Excellencies the Governors of States, and their respective Suites.

Adjutant Generals.

Their Honors the Lieut. Governors and Executive Councils of the States of Maine, New Hampshire, Vermont, Rhode Island, and Connecticut.

Senators and Representatives in Congress from the States of Maine, New Hampshire, Vermont, Rhode Island, and Connecticut.

President of the Senate and House of Representatives of Massachusetts.

Land Agents, with Secretary and Treasurer of Commonwealth. Foreign Consuls.

City Clerk, Treasurer, Auditor, Solicitor, Clerk of Common Council, and City Printer.

City Assessors.

Past Mayors, Past Aldermen, and Past Presidents of the Common Council.

Past Water Committees of the Common Council.

School Committees.

Port and Consulting Physicians.

Superintendents of the Buildings, Lamps, Streets, Sewers and Burials.

Overseers of the Poor.

Directors, Masters, Chaplains, and Clerks of Houses of Correction, Industry, and Reformation.

Superintendents of the Lunatic Hospital, and of Deer Island.

Clerks of Quincy Hall Market, and other Clerks of the City Government.

Deputy City Marshal and Messenger of the Common Council. Sergeant at Arms.

Senators and Representatives of the Massachusetts Legislature.

Warden and Chaplain of the State Prison.

Commissioner of Alien Passengers and Harbor Master.

Society of Cincinnati.

Officers of the Army and Navy.

Officers and Soldiers of the Revolution in Carriages.

Aid. United States Marshal.

Aid.

Judges and Clerks of the United States Court.

Commissioners of United States Circuit Court.

Post Master and United States Attorney.

Treasurer and Collector of the Port and Capt. of Revenue Cutter.

Naval Officer and Surveyor of the Port.

Navy Agent and Storekeeper and other U. S. Civil Officers.

Judges and Clerks of the State, County, and City Courts, Judges of Probate and Registers of Deeds.

District Attorneys throughout the Commonwealth.

The Reverend Clergy.

The Medical Faculty.

Editors of Newspapers throughout New England.

Members of the Bar throughout the State.

Deputy Sheriffs.

Authorities of the Towns through which the Aqueduct passes.

City Government of Salem.

City Government of Lowell.

City Government of Cambridge.

City Government of Roxbury.

City Government of Charlestown.

City Government of New Bedford.

City Government of Worcester.

Officers and Government of Harvard University.

Students of Harvard University.

Mercantile Library Association.

Scientific, Historical, Musical, and other Societies.

DIVISION TWO,

Under the direction of

GEORGE G. SMITH, Chief Marshal.

Aid

Aid

Capt. Granville Mears,

Joseph M. Wightman,

CONSISTING OF

Massachusetts Charitable Mechanic Association,

Franklin Typographical Society.

In this part of the procession was displayed a printing press, the operations of which were carried on by a full corps of compositors and pressmen. Mr. Samuel Hayward, a veteran printer, was employed in setting the types. There were three presses on the stand; one a power press, of Adams & Co.'s manufacture, and two hand presses. The whole mounted on a carriage drawn by four horses. The following song was struck off and distributed as the car moved on.

A S O N G

FOR THE MERRY-MAKING ON WATER DAY.

BY A MEMBER OF THE FRANKLIN TYPOGRAPHICAL SOCIETY.

Away, away, with care to-day!

There's naught but joy before us;

A gladsome shout from the mass goes out,

And we will join the chorus.

All hearts are glad, each face is clad

In smiles delightful beaming;

There's music rare on the autumn air,

And banners gay are streaming.

The axe is still, the loom, the mill;

The miser quits his treasure;

And every trade, it seems has made

A business now of pleasure.

And beauty bright doth shed its light
To glad the blest occasion,
And hearts to-day surrender may
To coveted invasion.

This is no meed for gallant deed
Achieved 'mid fields of slaughter ;
Voice, bell, and flame, with joy complain
The Advent Day of Water !

Cochituate, inspired of late
By something like ambition,
Left its still home to hither roam
Upon a blessed mission :

It passed along with gladsome song,
The meadows smiled to greet it ;
And as each day it neared this way,
Our spirits sprang to meet it.

Its journey passed, 't is here at last,
And hailed with acclamation ;
And every tongue shall swell the song,
Whate'er its rank or station.

The thirsty mart feels through its heart
The mighty current quiver,
Through streets and lanes, in iron veins,
A subterranean river.

Unseen it comes to all our homes,
To cheer the high and lowly ;
Like gifts from heaven, unknown when given,
But through their influence holy.

Exuberant force impels its course,
It rushes wildly onward ;
Its fountain spray darts high away
In jets fantastic sunward.

Hail, hopeful stream ! from thy bright gleam
Our hearts reflect the omen,
That water's want no more will haunt
The thirsty man or woman.

Then let us join in nine times nine,
To greet the scene before us ;
And to the skies let shouts arise,
A universal chorus.

And ever may we bless the day
When Boston's sons and daughters,
Came up elate to celebrate
The Advent of the Waters.

Boston Charitable Association of Master Tailors.
 Shipwrights and Caulkers of Boston and Charlestown.
 Occupants of Quincy Market.
 Occupants of Boylston and other Markets of Boston and vicinity.
 Mechanic Apprentices' Library Association.
 Worcester County Mechanics' Association.
 Salem Charitable Mechanics' Association.

The different sections of this division exhibited appropriate emblems of their various occupations; the Tailors displayed a representation of Adam and Eve, as a specimen of the human race before the invention of their craft. The occupants of the Markets had a stall fitted up in a most tempting manner, with meat, game, fruit, and vegetables, all of the finest kind. A car filled with young girls represented the manufactory of artificial flowers. A ship rigged and manned, and other devices and emblems, too numerous to be described, came into this part of the procession, the whole line of which was marked by an endless and most tasteful variety of banners.

DIVISION THREE.

Under the direction of

COL. NEWELL A. THOMPSON, Chief Marshal.

Aid

Aid

Maj. George M. Thatcher,

Hamilton Willis,

CONSISTING OF

Masonic Fraternity,

Grand Lodge, Grand and Subordinate Encampments, and Subordinate Lodges throughout the States of Massachusetts, Maine, New Hampshire, Vermont, Rhode Island, and Connecticut.

Ancient Order of Druids.

Council of the Star in the East.

The ranks of this division were very full, and made a most gorgeous display of banners and emblems.

DIVISION FOUR.

Under the direction of

JOHN C. TUCKER, Chief Marshal.

Aid

Aid

James Egan, Esq.

Peter Higgins,

CONSISTING OF

Scots' Charitable Society.

Irish Catholic Society.

Roman Catholic Mutual Relief Society.
 Young Catholic Friends Society.
 St. Mary's Mutual Benevolent Total Abstinence Society.
 Irish Protestant Mutual Relief Society.
 Father Matthew Mutual Benevolent Total Abstinence Society.
 United Shamrock Society.
 St. John's Temperance Society.
 St. Nicholas Temperance Society.
 St. Augustine's Temperance Society.
 South Boston Young Catholic Friend Society.

All these societies were in very full numbers, and with their appropriate banners and badges, made a very striking appearance.

DIVISION FIVE.

Under the direction of

MOSES KIMBALL, Chief Marshal.

Aid

Dr. D. Harwood,

Aid

Amos W. Dana,

CONSISTING OF

Massachusetts Temperance Society.
 Massachusetts Temperance Union.
 Boston Temperance Union.
 Washington Total Abstinence Society.
 North End Total Abstinence Society.
 Young Men's Temperance Society.
 South End Total Abstinence Society.
 Independent Order of Rechabites.
 Templars of Honor of the Sons of Temperance.
 General and Subordinate Divisions of the Sons of Temperance
 and Cadets of Temperance throughout the States of
 Massachusetts, Maine, New Hampshire, Vermont,
 Rhode Island and Connecticut.

In this division, the Cadets of Temperance, a large army of temperance boys, dressed in uniform, and the Sons of Temperance were out, in very great numbers, with beautiful banners designating their respective encampments. The various Temperance associations all appeared with full ranks, and made a most appropriate and impressive show.

In the centre of the Temperance section was a banner upon which appeared the "Pledge" in full, upon a scroll, motto, "BOSTON." The Shakspeare Division, Sons of Temperance, bore a superb banner of scarlet velvet, fring-

ed with gold and lined with white satin. On the front, "Shakspeare 46." Reverse, white satin "BOSTON." The banner draped with yellow satin, and trimmed elegantly with tassels and heavy ornaments. A rich bible and costly silver salver were borne in the ranks of this society.

DIVISION SIX.

Under the direction of

CAPT. ROBERT B. FORBES, Chief Marshal.

Aid

Aid

Thomas Motley, Jr.

William B. Bemis,

CONSISTING OF

Boston Marine Society.

Seamen's Friend Society.

Boston Port Society.

Salem East India Marine Society.

Other societies for the Improvement and Relief of Seamen in Boston, Salem, New Bedford, and vicinity.

Commissioners of Boston Pilots.

Boston Pilots.

Reverend Clergy of Seamen's Churches.

Captains and other Officers of vessels in port.

United States, and other Seamen in port, with flag and ship on platform drawn by horses.

Boat Clubs of Boston and vicinity.

Shipping Masters and Landlords of Seamen's Houses, Officers and Crews of British Steamer and other foreign vessels in port.

Officers and Crew of the Revenue Cutter Hamilton.

In this division the Boston Port Society bore a banner with a device representing a sailor pointing upward, and the motto, "Sure guide to happiness."

The Salem East India Marine and the Old Marine Societies bore in their ranks the old Palanquin, which has not been before seen in public for about forty years. This was carried by six stout negro bearers, dressed in white oriental costume, with white turbans. Inside was a fair young boy reclining in oriental style.

In a carriage, drawn by four fine horses, was a large, full-rigged model of the famous and fortunate privateer, the *Grand Turk*, celebrated in the last war with England, by her successful operations.

DIVISION SEVEN.

Under the direction of

GIDEON F. THAYER, Chief Marshal.

Aid

B. B. Mussey,

Aid

Abel Tompkins,

CONSISTING OF

Citizen's Water Committee of 1844.

Union Water Convention of 1845.

Ward Water Unions of the several Wards.

Natives of Boston residents in other places.

Handel and Haydn Society.

Citizens in Wards, beginning with Ward One.

Resident and Assistant Engineers of the Water Works.

Superintendents of Masonry.

Contractor, Inspectors, and Masons on the Water Works.

Two of the largest sized Water Pipes, mounted on a platform, and drawn by seven superb black horses, graced this part of the procession. On one of these was inscribed :

“FIRST PIPE LAID APRIL 19TH, 1848.”

On the other :

“WATER INTRODUCED INTO THE CITY OCT. 25, 1848.”

Not far from this was a bricklayer's platform, with the appropriate implements of their trade ; followed by a host of the Cochituate workmen. These made a very neat appearance in a uniform and appropriate costume of checked shirts with neat white collars.

DIVISION EIGHT.

Under direction of

EBENEZER DALE, Chief Marshal.

Aid

Daniel Sharp, Jr.

Aid

Henry C. Wainwright.

CONSISTING OF

Children of the Boston, Charlestown, Cambridge, Roxbury, and Chelsea ; Pupils of the Public Latin, High, and Grammar Schools, and of the Farm School, with their Teachers ; Children of the Orphan Asylums ; Floral Procession without carriages, under the direction of the Rev. Charles F. Barnard, and Sisters of Charity, with children over eight years of age.

The various parts of this division met at the stations appointed for them, and formed on the Common at the places designated when they received the procession on

its arrival at the Common. This was one of the most interesting portions of the show of the day.

THE FIRE DEPARTMENT

Under the direction of

PETER C. JONES, Chief Marshal,

Aid,

Thomas A. Williams,

Aid,

Henry Hart,

The Members of the Fire Department assembled in very great numbers, and took their stations at the head of the procession as a part of the escort. They were in uniform, with banners,—each company preceding its engine. The Engines and Carriages of Hook and Ladder Companies, were each drawn by two horses. The engines were beautifully ornamented with wreaths and flowers. Numerous companies of firemen from other towns in the State were present, preceded by the Veterans of this City. There were companies present from Brookline, South Boston, Charlestown, Chelsea, Lowell, Newton, Natick, Woburn, Quincy, Randolph, &c., and also from the neighboring States: all without their engines, but in uniform, with beautiful banners. These companies were composed of hardy young men, dressed in a great variety of showy costume, who made a very brilliant and imposing appearance. The Lafayette Company, No. 18, were attended by their faithful old dog TIGER, dressed in gala colors, and appearing as much in his element as any of his associates, with whom he has attended most fires that have occurred in the City for a number of years.

A boys' fire engine, drawn by two very small ponies, attracted a good deal of attention.

The Military escort presented a fine appearance, from the variety and beauty of the uniform and equipments, of the troops, as well as their superior discipline, and made a very fine show. A review of the troops by the Governor took place on the Common at twelve o'clock, previous to the moving of the procession. This review presented perhaps as fine a military display as ever was seen in Boston. The Review occupied about half an hour, when the

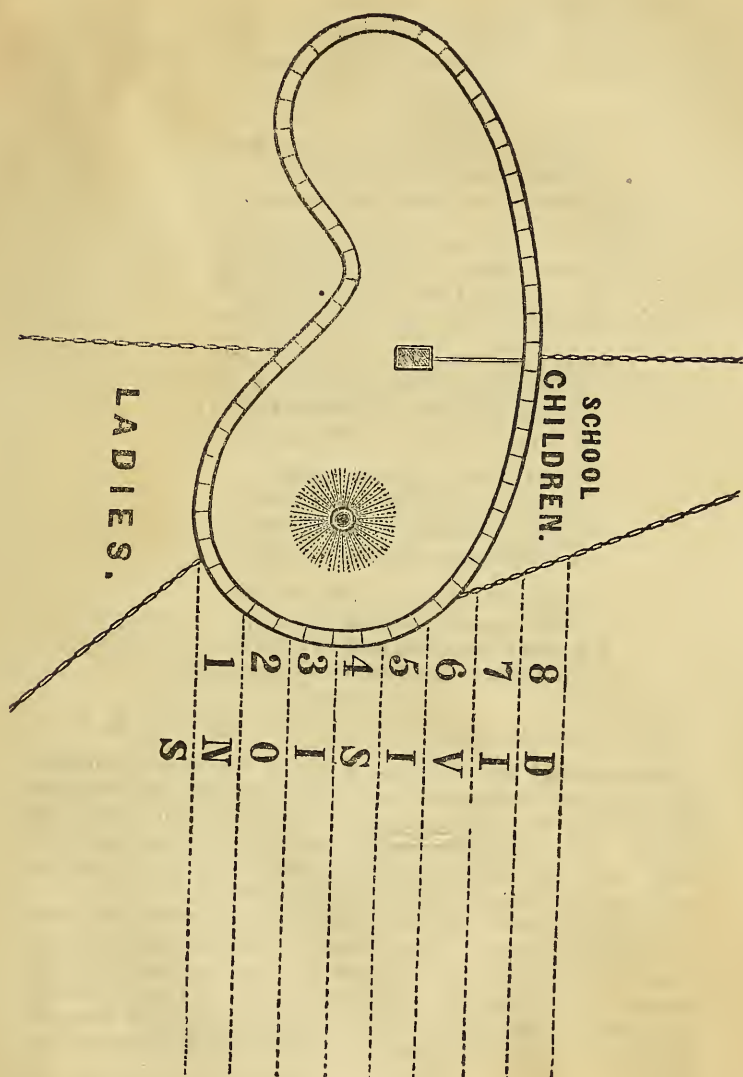
troops moved from the ground, and took the position assigned them at the head of the procession. The Lancers were placed at the head of the escort. They bore in their ranks the colors of the Massachusetts Volunteers to Mexico. Among the companies under command of Gen. Edmands, besides the Light Infantry Corps of this city, were the Framingham Light Infantry; the Brooks Phalanx, of Medford, under command of Col. J. B. Winn; the Worcester Light Infantry; the Salem Light Infantry; the Salem Guards; the Marblehead Light Infantry; the Newburyport Light Infantry; the Halifax Light Infantry; the City Guards of Manchester, N. H.; the Northampton Artillery, and the Roxbury Artillery, (acting as Infantry,) and the Providence Light Infantry.

The route of the Procession was through Tremont, Court, Cambridge, Chamber, Green, Pitts, Merrimack, Blackstone, Salem, Charter, Hanover, Richmond, Commercial, South Market, (around Faneuil Hall,) Merchants' Row, State, Washington, Warren, and Tremont Streets, to the Common, through Park Street Gate.

Great precautions were taken to keep the streets through which the procession passed, free from carriages, and these were every where successful. The windows on the whole line as it passed, were filled with spectators as were all steps and balconies and side-walks, and roofs, where footing could be found. Although there were so many persons in the procession, they seemed few, compared with the numbers out of it. As each successive division of the procession came in sight, it was greeted with admiration by the crowds of spectators. It took about two hours for the whole to pass a given point, and although the escort reached the Common a little before three, the last part of the procession did not arrive at the end of the route until near five o'clock.

The several divisions in which the procession was formed, were conducted to the sites allotted to them respectively, on the grounds surrounding the Frog Pond, in the centre of which the Fountain was established,

through which the water was to be introduced to the first view of the citizens. On the northerly side of the pond, to the extent of about half its circumference, the grounds, by the judicious arrangement of the Chief Marshal, had been kept entirely clear, until occupied by the procession moving in the prescribed order, to their allotted stations; while on the other half, the grounds had been for a long period entirely occupied by vast numbers of people of both sexes, patiently awaiting the arrival of the procession, and the opening of the fountain. When the last divisions of the procession had reached their stations, the whole circuit of the pond, and the grounds arising from it on all sides, in irregular declivities, forming an immense amphitheatre, were filled by a concourse of persons of the most orderly demeanor, variously estimated at 50,000 to 100,000 in number. The relative positions of the several divisions of this vast assemblage are indicated by the following diagram. The shaded circle indicates the position of the fountain; and the oblong, that of the platform on which the Mayor, Committee of Arrangements, and public officers were stationed.



The services appointed for the occasion, preliminary to the introduction of water, were brief, and these were curtailed on account of the lateness of the hour at which the procession reached the spot. They were as follows:

I. HYMN.

BY GEORGE RUSSELL, ESQ.

Sung by the Handel and Haydn Society and Audience.

TUNE, "OLD HUNDRED."

Eternal! uncreated God!
 Source of our being! Fount of love!
 Our songs ascend to thine abode;
 Thou art the joy of worlds above.

The Sea is thine:—at thy command,
 From darkness deep, its waters came:
 The "Sons of God" beheld thy hand,
 And in loud chorus praised thy name.

Rivers, and lakes, and springs declare,
 That 'Thou art wise, and kind, and good;
 Both man and beast thy bounties share;
 Thou givest *drink*:—Thou givest food.

Behold! from yonder distant lake,
 A stream, our City now supplies!
 We bid it welcome:—come partake:
To-day its waters greet our eyes!

Let old and young, and rich and poor,
 Join in one full harmonious song!
 Let every tongue its praises pour,
 And swell the Anthem loud and long!

II. PRAYER BY REV. DANIEL SHARP, D. D.

Almighty God our Heavenly Father; we present ourselves before thee, on this occasion with reverence, with gratitude and with thanksgiving. We adore thee as the Creator of worlds and of men. The sea is thine and the dry land, for thou hast made them. And the waters are thine, which spring up from the earth, and gush forth in pure and living streams.

We thank thee O God that thou dost not forsake this world which thou hast made. Thou givest the early and the latter rain. Thou visitest the earth and waterest it. Thou makest it soft with showers; thou blessest the springing thereof. By thy knowledge the depths are broken up, and the clouds drop down the dew, that the grass may grow, and the earth bring forth its fruits in their season.

O Lord, we have come here to manifest our joy, that for this City, where multitudes do congregate and dwell, channels have been completed, through which the streams of health, and cleanliness and comfort, will abundantly and constantly flow. We bless thee, that there has been this wise forethought and this provident care, for all classes amongst us.

Grant O Lord, we beseech thee, that when the water shall begin to flow, it may flow on to the end of time; ministering to the

gladness and purity of every dwelling. We pray, that unborn generations may have cause to bless the men, whose minds conceived, whose tongues recommended, and whose hands and skill accomplished the glorious work of bringing this pure, sweet, and health promoting gift of Heaven to their abodes.

Nor would we be unmindful of other gifts of thy providence. We thank thee for the founders of this ancient Town; and we thank thee, for a City Government, whose principles are law, equity, liberty, and order. We thank thee, that its administration has ever been intelligent, just, forbearing, energetic. We thank thee for our public schools, the glory of our land. We thank thee for our institutions of charity; and for Christian churches; and that all sects have equal and perfect freedom to worship Thee. Above all, we thank thee for the glorious gospel, which bringeth life and immortality to light.

These thanks, we offer to thee, O Lord; and these blessings we implore, with the forgiveness of our sins, in the name of Christ our Lord and Saviour. Amen.

III. ODE.

BY JAMES RUSSELL LOWELL, ESQ.

Sung by the School Children.

I.

My name is Water! I have sped
Through strange dark ways untried before,
By pure desire of friendship led,
Cochituate's Ambassador;
He sends four royal gifts by me,
Long life, health, peace, and purity.

II.

I'm Ceres' cupbearer; I pour,
For flowers and fruits and all their kin,
Her crystal vintage, from of yore
Stored in old Earth's selectest bin,
Flora's Falernian ripe, since God
The winepress of the deluge trod.

III.

In that far isle whence, ironwilled,
The new world's sires their bark unmoored,
The fairies' acorn cups I filled
Upon the toadstool's silver board,
And, 'neath Herne's oak, for Shakspeare's sight,
Strewed moss and grass with diamonds bright.

IV.

No fairies in the Mayflower came,
And, lightsome as I sparkle here,
For mother Bay State, busy dame,
I've toiled and drudged this many a year,

Throbb'd in her Engine's iron veins,
Twirled myriad spindles for her gains.

V.

I, too, can weave ; the warp I set
Through which the sun his shuttle throws,
And, bright as Noah saw it, yet
For you the arching rainbow glows,
A sight in Paradise denied
To unfallen Adam and his bride.

VI.

When winter held me in his grip,
You seized and sent me o'er the wave,
Ungrateful ! in a prison-ship ;
But I forgive, not long a slave,
For, soon as summer south winds blew,
Homeward I fled disguised as dew.

VII.

For countless services I'm fit,
Of use, of pleasure, and of gain,
But lightly from all bonds I flit,
Incapable as fire of stain ;
From mill and washtub I escape
And take in heaven my proper shape.

VIII.

So free myself, to-day, elate
I come from far o'er hill and mead,
And here, Cochituate's Envoy, wait
To be your blithesome Ganymede,
And brim your cups with nectar true
That never will make slaves of you.

ADDRESS BY NATHAN HALE,

ONE OF THE WATER COMMISSIONERS.

Mr. Mayor and Gentlemen :

The vast concourse of our fellow citizens here assembled testifies how deep an interest is felt, in the event which we are met to commemorate. It is the accomplishment of a great public work which is of equal benefit to every citizen. It is the supply of a want common to every human being—of the pure element which is an in-

dispensable ingredient in the ordinary sustenance of life—of an essential agent, for the preservation of health, cleanliness and comfort,—for the protection of our dwellings against conflagration,—and for the prosecution of many of the arts of life.

Boston, in the periods of her early history, was celebrated for the abundance of her springs of pure water. But in the progress of a great community, nothing essential to its growth can be stationary, or limited. These springs are no longer sufficient for the nourishment of the vast population, which commerce, industry, and liberal institutions have planted on this peninsula. The same principle which compels us to seek for food, and for articles of luxury, beyond the products of the neighboring country, leads us to look abroad for a more ample supply of water. We at the same time avail ourselves of one of the most obvious benefits of a compact society, in making use of its combined resources to provide this necessary of life to every family, and to relieve them from the labor of drawing it from the recesses of the earth, or of gathering it in cisterns, as it falls from the clouds.

To enable our citizens to accomplish this object, the Legislature of the Commonwealth, at their request, granted to them full authority, to take the necessary measures for supplying the City with pure water. The execution of that authority has been conferred by you, Gentlemen of the City Council, upon the Water Commissioners, who are now before you. It has become my duty, in their behalf, to state how far the trust thus devolved upon them has been executed.

We have not been insensible to the magnitude of the trust. We have felt that the duty was imposed upon us to furnish an ample supply, for all the wants of every citizen ; and to draw it from a source of unquestioned purity. We have not been unmindful of the progressive character of this community, and of the rapid increase of its population, and its wants. The number of our citizens has been twice doubled within the space of forty years,

and it may again be doubled, in the twenty years to come. We have looked therefore not merely to the present demands of the City for water, but to its prospective wants.

We have looked also to futurity, in determining the character of the works, which it has been our duty to construct. They are built of materials imperishable in their nature, and the principal works are of a structure which we trust will be as durable as time itself.

The source from which the supply is drawn, is a Lake, situated in an elevated part of the country, twenty miles distant from the City, remote from the habitations of men, and secluded from the seats of all such occupations as might subject it to causes of impurity. The Lake covers an area of a mile square; it is of great depth; and is supplied by the rains which fall upon a large surrounding country, as well as by springs and streams never liable to be rendered turbid by inundation. Its banks are mostly covered by a growth of forest trees, and shrubbery; and to secure it against the intrusion of men or animals, a margin of land, entirely surrounding its shores, has been acquired, and will be separately enclosed, as the property of the City.

The waters of this Lake have flowed for ages through a remote part of the country, to the ocean. Their natural outlet is now forever closed; and a new channel has been formed, by the excavation of the intervening barrier of earth and rock, for conducting them by a gentle declivity to the City. Through this channel, a covered aqueduct of brick masonry has been built, to secure the flow of a uniform current, sufficient to supply the wants of the City, even should its population become double its present numbers.

This aqueduct, instead of inviting admiration, like some of the works of ancient art, constructed for a similar purpose, is almost concealed from view, by the earth which has been replaced over it, and the public will be left to judge of its magnitude and difficulty, and of the

labor and skill required in its accomplishment, chiefly from a computation of its cost. Its value, however, will be measured by the degree in which it shall accomplish its purpose.

In those parts of the work which are exposed to view, it was decided to adopt a style of architecture, severe and simple, indicative of a prudent economy, but at the same time such as would not degrade the character of a great public work, or give offence even to a fastidious taste.

The supply of pure water thus conducted to the City from its secluded source, is not simply poured into the public squares and market places, but it is conveyed through subterranean passages to the dwellings of every citizen; and if they desire it, to every one's chamber and closet. It is not left to be borne by manual labor, from deep vaults, and stagnant cisterns, but it ascends, in obedience to a mysterious law of nature, to such part of every mansion, as its possessor may direct. Sprung from an elevated source, and devoted to the service of man, in the supply of his domestic wants, it is taught to mount again to the same elevation, and to maintain its level, until it shall have accomplished all the purposes to which it is destined.

To obtain the power of distribution, at all times, throughout the elevated parts of the city, it was necessary to erect large reservoirs, at an elevation of 120 feet above the sea, and nearly equal to that of the original source. One of these, situated on the nearest neighboring height beyond the limits of the city, is capable of containing 100,000,000 of gallons of water, a quantity sufficient for the uses of the city for a period of two weeks, should the supply be interrupted by any accident for that period. Into this reservoir the aqueduct is capable of discharging more than 10 millions of gallons every day, flowing by a gentle current—traversing the 15 miles of its course in less than 24 hours,—and falling, in that distance, about 4 feet from the level of its original source.

The other reservoirs, yet unfinished, situated on the

most elevated points of the old City, and of South Boston, will perform the functions which belong to the heart in the animal system, forcing the life sustaining fluid to its distant members, and transfusing it through intricate arteries, to every part of the body. These reservoirs will be completed in the course of the ensuing year.

From the several reservoirs the water is conveyed, not only through every street of the City, but into the house of every citizen. The distribution by service pipes to private houses, in public works of this nature, is usually made at the private cost of the persons supplied ; but it is here executed, in common with the residue of the work, at the public charge, making a very sensible increase of the labor and cost of the work. The tubes leading to the central reservoirs, and through the streets, are made of cast iron,—a material which long experience has shown to be best adapted to this use, for its strength and durability. They are of the most liberal dimensions, and their whole extent is more than sixty miles. The smaller pipes, by which the water is introduced into the dwellings of the inhabitants, are chiefly of lead. It is a material more ductile than iron, and on careful inquiry it has been judged, in every respect, best adapted for this use.

The further duty has devolved upon the Water Commissioners, of indemnifying the proprietors of lands and of water rights, taken for the use of the City, for the injury which they have suffered, from this appropriation of their property. We have entered upon the discharge of this delicate trust, with a scrupulous regard for the rights of the numerous claimants, and with a deep sense of the obligations of equity and honor, which demand the adoption on the part of the City, of a liberal and generous rule of compensation ; while at the same time, we are bound, by a like sense of justice, to resist claims which may appear to be extortionate. Much progress has been made in the discharge of this difficult duty. The claims for lands surrounding the Lake, are nearly adjusted, as

are also a large portion of those for lands occupied by the aqueduct.

To obviate the necessity of fixing a valuation of the water rights on Concord River, which might have suffered diminution, from the diversion of the waters of Cochituate Lake, we have provided two artificial reservoirs, of great capacity, which will be replenished, during every winter, and will be capable of supplying, to the river, far more than an equivalent, for all the water diverted from it for the use of the City.

Preparatory to the supply of water to the inhabitants of the City, we have, in pursuance of the duty imposed upon us by the Water Act, prepared a scale of annual rents, to be charged for the use of it. It has been decided that the rents shall begin from the 1st of January next.

The charges have been arranged upon the lowest scale which can afford the promise of an adequate indemnity for the cost of the work, and at lower rates in general, than are paid for water in any city within our knowledge. It was deemed suitable that the fruits of an enterprise, prosecuted at the common charge of all the citizens, and for the common benefit, should be enjoyed by all, on the most liberal terms, consistent with the sacred duty of providing for the debt, which is a necessary condition of the accomplishment of the work.

It remains only for me to perform the grateful duty, of acknowledging the obligations which the Water Commissioners are under, for the cordial coöperation of all those who have been associated with them, in the prosecution of the enterprise. To the skill, energy and assiduity of the Chief Engineers, Messrs. Whitwell and Chesbrough, and of the Consulting Engineer, Mr. Jervis, we are eminently indebted for the promptness and success, with which the work has been carried forward, and the satisfactory manner in which it has been executed. We acknowledge also with much satisfaction the skill, fidelity, and untiring industry of the Resident Engineers, and

the hearty coöperation of the assistants, and the whole engineering corps, of both departments, by which the successful progress of the work has been most essentially promoted.

Our acknowledgments are also especially due to the able, faithful and energetic contractors, by whose agency almost all the branches of the work have been executed, either in the furnishing of materials, or the immediate prosecution of the work. We were fortunate in meeting with men in this relation, in the various departments of the work, skilled in their respective duties, fertile in resources, and faithful to their engagements. The vigor and perseverance, displayed in the perforation of the tunnel sections, and in laying the foundations of the aqueduct, through a long extent of quicksands, deserve especial commendation. Every portion of the work, we trust, will bear perpetual testimony to the fidelity of the execution.

To you, in an especial manner, Mr. Mayor, to the gentlemen of the City Council, and in particular to the members of the Water Committee, and the Committee of Finance, we present our most hearty thanks, for the firm support which you have afforded us, in the discharge of our duties. Every assistance which we could ask of the Municipal authorities has been at all times freely rendered. The City Treasurer, also, is entitled to our thanks, and earnest commendation, for the admirable regularity and promptness with which payment has been made, of the orders of the Commissioners, and the ease and confidence with which he has enabled us to manage the financial concerns of our trust. Under his efficient administration, notwithstanding the long continued and severe pressure, on the money affairs of the country, the City Treasury in aid of this work, has poured out its resources like water. We trust that the vast expenditure which has been thus made, will prove an investment, which shall afford a perpetual revenue of benefits, rivalling those of the most successful enterprises of the day.

I cannot forbear, on this occasion, the expression of the

warmest gratitude, for the countenance and encouragement with which we have been supported, and cheered, by our fellow citizens, in the prosecution of our arduous duties. Under the smile of their approval, the task has been light, and the labor a pleasure. It has been with the utmost gratification, that we have witnessed the patience and good humor, with which every class of citizens have submitted, to the endless inconveniences, arising from the necessary interruptions of the streets, during the progress of the work. A readiness has been manifested on all sides, to ascribe these inconveniences to an uncontrollable necessity, and to submit to them without a murmur.

A similar courtesy has been exhibited, by the citizens and Municipal authorities of Roxbury, Brookline and all the towns which are traversed by our works. They appear to have justly appreciated the importance of the enterprise, and as citizens of the Commonwealth, to have felt a common interest with their brethren of the metropolis, in its anticipated benefits. May this exhibition of kindly sympathy, excite in our minds a reciprocal kindness of feeling, and may that Almighty Being, who holds the waters in the hollow of his hand, and pours them out for the use of his children, crown with his blessing a work which has been accomplished for the common benefit of a great people.

SPEECH OF JOSIAH QUINCY, JR.,

MAYOR OF BOSTON.

Centuries have elapsed since the aboriginal inhabitants of this land sought the sweet springs that welled up among these hills, and gave to the place in allusion to them the name of Shawmut. We have come, fellow citizens, to witness the completion of a work that is to give the peninsula a new title to its Indian name.

And we have not come alone. Our friends, our neighbors, our fellow citizens from every part of the State and from the whole of New England, have assembled to sympathize with the joy of the citizens of Boston, as their fathers rushed to their assistance in the hour of peril. Every sect and every party, every age and every calling have this day forgotten their distinctions and their differences, and remember only that they are children of a common parent who are to receive a common blessing. We have come to congratulate one another, in what this element is to do for health and purity, temperance and safety, and to rejoice that these blessings are secured to those who shall inhabit this peninsula forever.

On such an occasion, the most appropriate exercise is a statement of the origin and progress of the work, of the financial arrangements that have been made for its construction, of the effect it is to produce upon the interests of the city, and to express our gratitude to those who have so efficiently and rapidly hastened on its completion.

The subject of supplying the City with water was first introduced to the attention of the City Council by Mr. Quincy, the second Mayor of the City, and was again and again brought forward by his successors in office. The want of this essential element for luxury, for comfort, for health, and for protection from fire, increased daily, and numerous projects were suggested for its supply.

The present mode was first proposed in the report of a Board of Commissioners, consisting of Messrs. Treadwell, Baldwin and Hale, in the year 1837. It was not then recommended by a majority of those Commissioners, on the ground that the cost would be greater than the City would be willing to encounter, and that the wants of the then population would in their opinion be supplied at less expense from another source. This mode, however, was deemed practicable, and the supply ample, and its adoption was strongly recommended by Mr. Baldwin.

In the year 1844, this source was more fully investigated by a new commission, consisting of Messrs. Patrick T. Jackson, Baldwin and Hale, and was strongly recommended by them, as the most satisfactory of all the modes which had been suggested. It was approved by the City Government of that year, and an Act of the Legislature was passed, granting the necessary powers, subject to ratification by vote of the inhabitants of the City. It was, however, rejected by a majority of the voters, on the ground chiefly that another mode of supply was entitled to a preference.

The City Council thereupon wisely resolved to employ two distinguished engineers from other States, to make a thorough examination of the two sources which had for a long time engaged the attention of our citizens, to report thereon, and to recommend that which in their opinion was entitled to a preference. This commission, after a thorough investigation, made an elaborate and satisfactory report, in which they adopted the plan which had been proposed by the former. In conformity with this recommendation, and in compliance with the declared wish of the citizens, the City Council directed the Mayor, to make application to the Legislature for authority to supply the City with water from Long Pond. This authority was granted by the passage of the Act of March, 1846, conferring on the city all the powers necessary to take the water,—to convey it to the City—to raise by loan the funds necessary for defraying the cost—and to make the proper regulations for its distribution.

For carrying these powers so far as related to the execution of the work into effect, the present Board of Water Commissioners was appointed on the 3d day of May, of that year. They entered at once upon the discharge of their duties, and with as little delay as possible digested a plan of operations and appointed engineers. For the purpose of securing greater energy and a more thorough supervision, they established two distinct departments,

with a Chief Engineer in charge of each. One department was employed in the construction of works for conveying the water of Cochituate Lake to Brookline, and of a reservoir for its reception at that place. It was the duty of the other to convey the water by iron pipes, from thence to the City, and to superintend the construction of reservoirs on Beacon Hill and at South Boston.

On a thorough re-survey of the difficult tracts of country between Lake Cochituate and Boston harbor, some material improvements were made, in the line indicated by the preliminary surveys. By tunnelling through two hills in Newton and Brookline, the length of the aqueduct was reduced about a mile; a high and costly embankment over lands of great value in Brighton was dispensed with, and the necessity of conveying the water in pipes across the Brighton valley was avoided.

The route of the aqueduct crosses the summit of land which intervenes between the Concord and Charles rivers, and also that between the Charles river at Newton Lower Falls, and the tide waters at Brookline. In cutting through these summits it was found necessary to perforate ledges of porphyritic rocks of the hardest description.

The prosecution of the surveys, and of the other preparations for the commencement of the various branches of the work, was greatly expedited, by the previous acquaintance of the Commissioners with the routes to be explored, and with the system of works proposed. They were fortunate also, in obtaining the services of engineers, in whose skill they justly placed the utmost confidence, and who cordially coöperated in carrying out their views, in an energetic prosecution of the work. Early attention was paid to those portions of the work which would occupy the longest period in execution, and such arrangements were made that no part of it should be delayed in waiting the completion of another.

The location of the aqueduct was so far completed that a large portion of it was put under contract for the

excavation in a little more than three months from the appointment of the commissioners. The contracts for the residue including the Tunnel sections and a large portion of the iron pipes were made in the same year.

The Aqueduct of brick masonry extending from the Lake to Brookline, is nearly fifteen miles in length. This structure is of the oval form, approved by scientific engineers for its capacity, in proportion to the amount of material used, and for the adaptation of its shape and dimensions, to be conveniently entered for the purpose of inspection. The bricks are laid in hydraulic cement, which acquires a hardness and tenacity equal to that of brick or stone, and the structure is consequently of great strength. It is embedded throughout its entire length in the earth, to a depth in no part less than four feet, and is in the greater portion of its course, below the natural surface of the earth, and where it is above this surface it is covered by a permanent embankment.

The obstacles to be overcome have not been of a light or trivial nature. The aqueduct after leaving the gate house at the Lake, follows up the valley of Snake brook to a dividing ridge, that separates the waters of the Charles from those of the Merrimac. In this distance the difficulties encountered in the construction of conduit masonry arose from the character of the material in the foundation, no less than from the amount of water to be removed by pumps. The conduit lies wholly in excavation, varying from fifteen to fifty-two feet in depth, and for three-quarters of a mile occupies the bed of Snake brook, at an average level of twenty-three feet below the ordinary surface of its waters. The narrowness of the valley rendered it necessary to maintain an open channel for this brook parallel to the line and not more than twenty-five feet distant. From the slight descent of the brook and the extent of the country drained by it, it was impossible to prevent a periodical overflow, which, as the material was quicksand, produced the most disastrous results—the banks caving in and covering unfinished

work, and rendering it as difficult of completion as when it was begun.

At times like these there was no cessation of labor,—night forces relieved day forces—and the five steam engines attached to pumps capable of raising 12,000,000 of gallons 10 feet high in 24 hours, were constantly employed, and at times their extreme capacity failed to free the excavation. Unaided by steam this work could not have been performed in less than five years, and the expense of constructing the conduit in quicksands, subject to inundations for that length of time, would have increased in still greater proportions.

In the same section the extreme hardness of the rock was such, as to require seven times the amount of labor and powder, usually required for the same amount of rock excavation.

The Tunnel excavation, in proportion to its extent, was a work of still greater difficulty. It proved more so than was anticipated, by the unusual hardness of a portion of the rock excavated, and the large quantity of water which flowed from the surface by the seams of the rock. The two tunnels, measuring 3500 feet in length, were excavated in 18 months, by separate parties, laboring at ten distinct shafts of from 70 to 75 feet in depth, and carrying forward the work in each direction from the bottom. Successive parties of miners relieved one another three times in each 24 hours, each set of laborers working eight hours. The water and portions of rock removed were chiefly raised from the shafts by steam power. For the prompt execution of these and other difficult portions of the work, the Commissioners were fortunate in having secured the services of energetic contractors.

Another principal branch of the work consists of the iron pipes for the introduction of the water from the reservoir in Brookline to the city, and for the distribution of the water through the streets to the vicinity of each dwelling. The first class pipes, one 36 inches, and the

other 30 inches in diameter, are together about 50,000 feet in length. The other varies from 20 to 4 inches in diameter, and measures in all 280,000 feet in length, extending through nearly all the inhabited streets and courts of the City, making the aggregate length of iron pipes more than 60 miles.

In addition to the pipes for conveying the water through the streets to the vicinity of the dwellings of the inhabitants, pipes have been laid for conducting it from the street mains into the premises of individuals and within the walls of every citizen desiring to be supplied. The aggregate length of this pipe already laid, is nearly 100,000 feet. This part of the cost of distribution is usually made a charge on the individual supplied, but as it can be done at less cost by those charged with the execution of the main work, and as it will prove an inducement to a more immediate adoption of the use of the water by all the citizens, the City Council deemed it expedient that this charge should be defrayed at the public expense. It is manifest, however, that it will add considerably to the aggregate cost of the work.

Two large and extensive structures, very important to the completeness of the system of distribution are yet unfinished. Those are the reservoirs on Beacon Hill and on Telegraph Hill at South Boston. On the first of these the work is far advanced, but its magnitude is such as will prevent its completion before near the end of another year. In obtaining a site for it, it was necessary to remove a large public school house and a number of valuable private dwellings.

For the reservoir at South Boston the Water Commissioners have made a purchase of a tract of land, well adapted to the purpose, in concert with a committee, acting under the authority of the City Council for laying out a public square for the embellishment of that part of the City.

The land thus purchased is upon one of the beautiful heights of Dorchester, rendered celebrated by a memora-

ble event of the war of the revolution, and connected inseparably with the name of WASHINGTON. The selection of this site for the reservoir is, not only highly appropriate for the immediate objects for which this structure is designed, but it will aid in carrying into effect the desirable object of securing this elevated spot of ground, as a place of public resort for the ornament of the City.

The two City reservoirs, although not indispensable for the distribution of the water in all parts of the City, are yet necessary to the maintenance of such a head of water resting at all times upon the pipes, as will ensure an unremitted supply throughout the City at all times. With the aid of these reservoirs, connected with the distributing and service pipes, the system promises to be in a high degree satisfactory.

For the purpose of conveying a supply of water to the reservoir at South Boston, and keeping up a connexion between it and that on Beacon Hill, it was necessary to lay a pipe of sufficient capacity across the navigable channel, which separates South Boston from the City proper; this was a work of some difficulty. It has been accomplished by dredging a cavity of some feet in depth below the bottom of the navigable channel in front of the draw through which vessels pass, and sinking into it a section of pipe forty feet in length, laid in a strong box of wood and iron, with the ends converged upward in the form of an inverted syphon. These ends are connected above the level of the tide with pipes carried across the water under the bridge, and supported on piles in a box filled with materials suitable for its protection against frost. This pipe is twenty inches in diameter, and the section which was sunk below the channel was of a weight of thirty tons. The depth to which it is sunk is sufficient to admit of its being covered with earth for its protection from the keels of vessels. The pipe within the box is surrounded with hydraulic cement to preserve it from contact with the salt water.

The various works of masonry, with the exception of the brick conduit, are chiefly of Quincy or Rockport granite, and are of the most substantial description. Among these are the gate houses at Cochituate Lake and at the Brookline reservoir. These and the other edifices requisite for the protection of the works for regulating the admission and discharge of water, are in a plain and unostentatious style of architecture, but of tasteful proportions, appropriate to the character of the work of which they form a part. The smaller structures, for protecting the pipe chambers, waste-weirs, and other entrances to the aqueduct, are of a similar style of masonry, and to ensure their greater safety and durability, the larger are covered with roofs of iron, and the smaller with stone.

The bridge, composed of three arches of thirty feet span each, and an arch supporting the embankment over a public road in Needham, are beautiful specimens of that style of architecture, and of the most durable character. There is also a large number of culverts of the same character of strength and durability.

In addition to these works for the immediate purposes of supplying water to the City, and for protecting the main works against injury, two other structures have been erected, which with their appendages are of much importance.

These are substantial and permanent dams, for forming reservoirs to contain water, designed for replenishing Concord river, as a substitute for the water of which it will be deprived, by the diversion of Cochituate Lake. One of these reservoirs, at Whitehall, in Hopkinton, will cover an area of more than six hundred acres, and the other at Marlborough, on a tributary of Elizabeth river, an area of two hundred and eighty. These reservoirs, it is anticipated, will be filled by the rains of winter, and will furnish throughout the dry seasons of the year, for the use of the Middlesex Canal, and for the proprietors of water privileges on the river, far more than an equivalent,

for the power of which they will be deprived by the diversion of the waters of the Lake.

The purity of the water has also been ensured by removing the objectionable matter from the space between high and low water mark, around the entire margin of the Lake, a distance of more than thirteen miles, and by building dams across the outlets of the meadows connected with it, through which the waters may pass by filtration, and be thereby rendered more pure. The area of the Lake, when raised to the height intended, will contain two billions of gallons, above the level of the conduit by which it is conveyed to Boston. This amount could be increased, if required, from other ponds in the neighborhood, or from the Sudbury river, which can be entirely commanded, if needed, under the charter granted by the State.

There are other sources of satisfaction, connected with this work. Notwithstanding its nature, it has been performed without the stimulus of intoxicating liquor. It has never been suspected of being used as a political engine—and the hire of its laborers has never been kept back an hour. The labor and materials have been paid for when performed and delivered, and there are no outstanding debts for either, now in existence.

I have spoken thus at length, fellow citizens, of the nature and progress of this work. It has been constructed with a rapidity unparalleled in the history of great public undertakings,—obstacles, deemed almost insurmountable, have been overcome—the masonry, that is buried deep and which will never again meet the eye of man, is as perfect and finished as that which rises in eternal granite in our sight. Solidity has not been sacrificed to expedition. The rapidity is owing to the energy, the genius, and the skill, of the Water Commissioners, the Engineers, and the Contractors; and they have erected for themselves, in this work, a monument as permanent as the blessings they have secured.

In the Charter of 1845, it was provided that in addition to their other duties, the Water Commissioners should borrow and expend money without reference to the City Council. This Charter was most wisely rejected by the people, partly on the ground that no one should have the power of involving the City in debt, who was not annually responsible to the people at the ballot box. The Commissioners were thus relieved from the labors and anxieties attendant on financial operations, in times like those that have existed during the past two years, and have been enabled to devote themselves exclusively to the forwarding of the work, without being distracted by duties that were always pressing. These duties have devolved on the Committee on Finance, which consists of the Mayor and seven members of the Common Council. As this point is one of peculiar interest, I shall be pardoned for dilating upon it a little.

The original estimate for this work fell rather short of three millions of dollars; but if we take into consideration, that during its progress the Reservoirs at Brookline, on Beacon Hill and at South Boston have been quadrupled in size, that the iron pipe has been greatly increased in capacity, and carried into every house, and compensation reservoirs provided, we shall find that the estimates for the work, as originally contemplated, have not been exceeded. About three millions have been expended and the amount required to complete the reservoirs and distribute the water at South Boston, will, it is estimated, amount to half a million more. The cost, when completed, will not vary much from four millions of dollars.

The negotiations of this large amount of money in times when famine and revolution abroad and change of the tariff at home, had disarranged all financial calculations based on past experience was arduous and perplexing.

Two different agents were employed, to obtain the money in Europe, but without success. The loans have been made principally among ourselves, and it may be satisfactory to the public to know, that the average inter-

est of about three millions of dollars, is less than 6 per cent.

This, although a much lower rate than has been paid by any other corporation, is higher, in the opinion of the Committee, than would be required in ordinary times on the securities of the City of Boston. They have, therefore, under the authority given by the Legislature, borrowed as a temporary loan, payable within five years, about \$1,700,000, being confident that before the expiration of the time, loans could be made at a much lower rate of interest, and being satisfied that the low price of labor and materials, arising from the financial pressure, has more than counterbalanced the rate of interest for so short a period. Should their views be carried out, and the loans made to fall due in moderate amounts annually, they may be extinguished by the sales of public lands.

In this connection it may be well to remark that the lands belonging to the city amount to about 5,000,000 square feet. Those at the south part of the city are now being graded and put in order for the market at considerable expense—an expense, however, of which the interest will be more than covered by the rents of wharf property, and by incidental advantages resulting from the private railway erected for the purpose.

When these lands are prepared, if annual sales are made to pay the debt as it falls due, it will be but a few years before the water will be paid from this source alone, and the water will either be distributed without cost, or become a permanent source of increasing income to the City.

When we consider the fact that so great part of our territory is reclaimed from the sea, and such a large addition will be made by filling the Back Bay, and rendering what is now a nuisance, an ornament to the City; and when we reflect that without this supply of water, these lands would be of little value, and almost uninhabitable, we cannot but feel that the prosperity of this City will derive an incalculable impulse from this source, and that

without it, those whose labors will contribute to our wealth, must reside out of our territorial limits.

In this connection, I cannot but speak of the great and only objection that can be raised to this enterprise,—its expense. As I have before stated, the whole expenditure, when completed, will fall short of \$4,000,000. The interest on this is \$240,000 a year, from which is to be deducted the amount of water rents. Pipes from the mains, are inserted at the expense of the city into every house. The water rent is placed at a price that renders it economical for every one to take it. All citizens, whether they take it or not, will, after the expiration of two years from the completion of the work, be obliged to make up the deficiency of the rent in the general tax. All therefore are called upon by the natural desire of enjoying what they are obliged to pay for, from economy and from public spirit, to take the water and receive a blessing, which, after enjoying it for one year, neither they nor their families, would abandon for ten times its cost. If it is generally used, the tax will be a burthen on no one at present, the city lands will rapidly extinguish the principal, and our posterity will enjoy free water on a free soil.

The act authorizing the construction of this aqueduct renders it impossible for the City Council, or even for the Legislature, to render the water free until the debt is paid. By it a lien is given to the holders of the scrip issued for its payment on the water rents. And in case the Supreme Court should decide that they were reduced too low by the Council, they have the power on application of one hundred legal voters, to appoint commissioners, and fix the rate on such a basis, as to them may seem proper, for carrying out the intention of the Legislature, in giving to the lenders this species of security for their money.

I have thus spoken of the origin and the progress of the work, and of the financial arrangements for the payment of the interest and the extinction of the debt.

There are no works of man so permanent as those connected with the supply of water. Traces remain of the aqueducts of Greece and Rome. The well of Sychar which Jacob dug, and drank of with his children and his cattle, and which quenched the thirst of him who brought the living water, still yields its treasures to the weary Arab. Like the generations of men, a constant succession in this stream will make it permanent, and we cannot but believe, that they who centuries hence, occupy the three hills of Boston, will look back with gratitude to the men of this age, whose foresight and energy secured an unfailing wellspring, for themselves and their descendants.

But of all the inhabitants there will be none who will more fully appreciate the blessing than those who like ourselves have felt its want. I would therefore in behalf of the citizens of Boston express our obligations to those to whom we are indebted for its early supply.

To the Water Unions, for the concerted action that aroused the attention of the public, and caused effectual steps to be taken.

To the State, for the charter given by her Representatives, enabling us to go into the very heart of the Commonwealth and appropriate for this purpose the waters of Lake Cochituate, and of all streams and sources within four miles of the same—but why should she not have granted it? This spot is proud of emphatically belonging to Massachusetts. We are honored as being her capital, and we derive the strength and enterprise that distinguishes us, from her sons; this peninsula is the point to which their wealth and their energies particularly concentrate, and of the Merchant Princes, whose palaces stand around us, few were the native born citizens of Boston. They have come from every valley and hill side of New England—and in providing for the health and beauty of their metropolis, the Legislature have conferred a favor upon every inhabitant of the State, for there is no one who is not directly or indirectly, by himself or his friends, connected with the City of Boston.

Next to the State that gave us the power, our thanks are particularly due to those who have been intrusted with the executive management of this work. To the Water Commissioners, for their constant and judicious labors. To the Consulting and Resident Engineers, for their scientific, unwearied attention; and to the Contractors, who have gone forward with untiring zeal. From the moment of its commencement, the work has been unintermitted, by day and by night, from noon to midnight, and from midnight to noon, the labors of the hammer and of the spade have been incessant. The only hours of rest were those of which it has been said, "in them thou shalt do no manner of work."

Such labors have produced the most rapid and satisfactory results. But two years and two months have elapsed, since, as representative of the city, I had the honor of removing the first sod, and commencing the undertaking. The second was lifted by the venerated hand of him who has since fallen, like Chatham, at his post, and whom with the eye of faith we now behold, in the great company of those who partake of the River of Life freely. Had he been permitted to witness the conclusion, as he did the commencement of this enterprise, and to stand here to see an assembled people waiting for the gush of water, how would the imagination of the old man have gone back, over the lapse of ages, to the Hill in Horeb. He would have told us that the existence and attributes of the Deity were more fully proved by a scene like this, than when by the suspension of his laws he provided by a single act for a single people. That His wisdom had, in every land, prepared among the hills the receptacles of water. That His Power had given fixed and permanent laws to the most unstable of elements. That His Goodness enabled his intelligent offspring to understand and avail themselves of its use. Thus giving the blessings of water as truly, now, to all his children as he did to the chosen few, when, by the rod of his servant, he satisfied their thirst.

Fellow Citizens, our great work is accomplished. "Our bread shall be given us, our water is made sure."

The lateness of the hour having required the omission of a part of these performances, as the sun was then approaching the horizon, the Mayor, addressing the assembly, asked if it were their pleasure, that the water should now be introduced. An immense number of voices responded "aye;" whereupon, on the signal of the Chief Engineer, the fountain gate was gradually opened, and the water began to rise, in a strong column, increasing rapidly in height, until it reached an elevation of about eighty feet.* The jet, at the orifice, was six inches in diameter, and as the air was still, it rose in nearly a compact body, to the full height and fell gracefully on all sides in a regular form, exhibiting a power and beauty, which produced an evident surprise on the whole of the expectant multitude. After a moment of silence, shouts rent the air, emphatically attesting the universal joy, in witnessing this proof of the actual attainment of the object of so long cherished hopes. The profusion with which the desired treasure was poured out gave manifest satisfaction, as an earnest of the abundance of the future supply.

At that moment, the choir of children and others stationed near the fountain, sung the following words.

Thanks be to God! He laveth the thirsty land. The waters gather; they rush along; they are lifting their voices. The stormy billows are high, their fury is mighty: But the Lord is above them, and Almighty.

The sun was just sinking below the horizon, and its last rays tinged the summit of the watery column. The bells began to ring—cannon were fired—and rockets streamed across the sky. To the multitude around, the scene was one of intense interest and excitement, which it is impossible to describe, but which no one can forget.

* It has been ascertained by experiments and measurements since made, that a jet of three inches diameter rises, in a quiet atmosphere, to a height of ninety feet. The six inch column, and the spreading jet, rise to a less height.

After the first moment of surprise most of the spectators looked around upon their neighbors—some laughed aloud—the men swung their hats and shouted—and some even wept.

After the playing of the fountain in this form, for a short time, the water was shut off, and a new fixture being attached to the fountain, a jet was produced of a different form, by which a profusion of water was spread, by a current of similar force, over a wide space. Several successive changes in the form of the fountain, were subsequently exhibited, until the shades of evening began to descend upon the scene. In one of the intervals, for making the change in the play of the fountain, the Mayor addressed the pupils of the Public Schools who were stationed within hearing, to the following effect: "Boys, there will be no school tomorrow, and the fountain will play all day." The hearty response of some thousands of youthful voices, to this announcement, may well be imagined. The assembly withdrew gradually and quietly from the scene, but many lingered for the purpose of viewing the more brilliant display of fireworks, which were in preparation, to be lighted up, as soon as the daylight should be sufficiently withdrawn, to admit of their being exhibited to advantage. These preparations were made under the direction of Mr. Hovey, and they added an appropriate finish to the exhibition. Among the principal pieces, was one extending over the Pond from each side of the staging, in the form of arches. On either side were the inscriptions,

"COCHITUATE WATER INTRODUCED, OCT. 25, 1848."

"JOSIAH QUINCY, JR., MAYOR."

"HALE, BALDWIN, AND CURTIS, COMMISSIONERS."

A circle of Bengal lights around the fountain, produced a beautiful effect. This exhibition terminated at an early hour; when the crowd withdrew from the Common to

their homes, or quietly to observe the brilliant illuminations, in various parts of the city. Many of these were extremely beautiful, combining in fanciful and tasteful forms, thousands of lights. Among the more striking, were those at the Tremont House, the United States Hotel, the Revere House, the Adams House, the Marlborough Hotel, the City Hall, the office of the Gas Works, and many other public houses, offices, and private dwellings. In some of the streets the illumination was general, for a considerable extent, embracing both dwelling houses and places of business. Single buildings, or several buildings in groups, were brilliantly illuminated, in almost all parts of the city. Rockets were discharged from several parts of the city, and Bengal lights and other fireworks were exhibited.

Few instances have occurred in the city, of so universal a holiday, and yet there was no general public entertainment. The whole attraction was out of doors, and the weather being beautiful, and the temperature delicious, every one was abroad. No one lingered at the festive board, but all joined in the public procession, or were anxious to be among the spectators of it, and of the scene which was to succeed, and to crown the exhibition of the day. Vast numbers of visitors from neighboring towns and cities, and even from a distance, were parties and spectators. The whole was conducted with admirable order and regularity. There was no disorder, and no confusion. In producing this result, much was due to the judicious arrangements and foresight of the City Marshal, and of those who assisted him, and to the energy with which his regulations were carried into effect.

The absence of all disorder and confusion, is the more deserving of remark, from the unprecedented number of strangers, as well as citizens, who were witnesses of the spectacle. The seven railroads which terminate in the city, and the vast number of omnibuses and other vehicles from the neighboring towns, brought together, it is pre-

Since, a greater number of persons from abroad than were ever before assembled here. The railroads brought many thousands of passengers each, and most of the carriages and trains were crowded to their full capacity, without being able to contain all who desired to come; and many thousands were conveyed in the same way to their homes, many miles distant from the city, on the same evening. Notwithstanding this concourse of passengers, and the demand for extra trains, and crowded carriages, there was happily no instance of personal injury.

The extreme length of the procession, and the vast number of persons to be marshalled, necessarily occupied much time, and protracted the proceedings to a late hour of the day. The whole, however, was accomplished without confusion, and although the Police discharged their duty faithfully, it was manifest that it was the universal disposition for order, so creditable to the immense assemblage, and not the power of the Police, that kept every individual in his place, and carried into effect the prescribed regulations.

The attractions of the illuminated streets detained much greater numbers abroad, to a late hour in the evening, than is usual on holiday occasions. Yet decorum prevailed in every part of the city; persons of all descriptions perambulated the streets without annoyance or apprehension,—there was no exhibition of drunkenness or rioting,—and there was no unusual occupation of the Police Magistrates on the succeeding day.

It was a day which had been anticipated with deep interest,—it disappointed no expectations,—it was passed in social enjoyment, with the exhibition of a universal kindly feeling. No untoward event marred the pleasures of the occasion,—and it will long be remembered with pleasure, by the citizens, and many thousands of visitors, as marking the realization of a long desired event. Long may the inhabitants of the city enjoy the benefits of the common blessing, thus auspiciously introduced, and thus

received with immense rejoicing. May they and their descendants for ages to come, drink of the waters now for the first time introduced to their dwellings, and may the works of art by which they are conducted from their distant source, prove as durable as the law of nature by which they are bidden to flow.

BOSTON COLLEGE



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